

IN THE SPECIFICATION

Please replace the paragraph beginning on page 5, line 21 and ending on page 5, line 30 with the following paragraph:

FIG. 1 illustrates a tactile input device 100 in accordance with an embodiment of the present invention. A surface of the tactile input device 100 is divided into various sections having one or more input sensing devices 120 for detecting an input stroke. In the embodiment of FIG. 1, the sections include a petals portion 101 having eight angular petals 102, a central portion 104 having a raised dot 106, and an outer circumferential portion 108. In one embodiment (as shown in FIG. 1), the tactile input device 100, the central portion 104, and the outer circumferential portion 108 are circularly defined. In another embodiment, the tactile input device 100, the central portion 104, and the outer circumferential portion 108 are any one of a number of geometric shapes, such as, but not limited to, rectangular, triangular, oval, octagonal, or hexagonal. While a number of geometric embodiments have been described for the tactile input device 100, any number of combinations of geometric shapes might be used with the tactile input device 100.

Please replace the paragraph beginning on page 7, line 3 and ending on page 7, line 18 with the following paragraph:

Referring to FIG. 3, a conceptual illustration of the interaction between the tactile input device 100 and a computing system 300 is shown. The computing system 300 includes an operating system 302, a user interface interpretation module 304, and a display 306. In accordance with an embodiment, the user interface interpretation module 304 is a part of the user interface of the computing system 300 that interprets user information transmitted to the interface. The user interface interpretation module 304 may be designed with either software or logic. The user interface interpretation module 304 is a part of the operating system 302, but could be a program running on the operating system 302. A user interacts with the computing system 300 through the tactile input device 100, which is operably connected to the user interface interpretation module 304. In accordance with an embodiment, the user interface interpretation module 304 contains capabilities of supporting one user input device (such as 100) providing all input sensing

devices 120. The tactile input device 100 and the user interface interpretation module 304 are developed in a way so that the computing system 300 is controlled by the tactile input device 100 through the user interface interpretation module 304. The display 306 provides visual feedback to the user of operations performed by the user interface interpretation module 304 pursuant to commands transmitted from the tactile input device 100.

Please replace the paragraph beginning on page 9, line 6 and ending on page 9, line 22 with the following paragraph:

In one embodiment of the present invention, interaction between the tactile input device 100 and the computing system 300 is administered through a selection signal transmitted from an input sensing device 120 on the tactile touchpad 100. Each input sensing device 120, described below through the operational flow of FIG. 11, is linked to an information, or control, element associated with a task to be performed in the computing system 300. As discussed below, a task is a command to be implemented in the computing system. In accordance with various embodiments, the task might be executed by the operating system, the application program calling the operation, the user interface through which the application is operating, or the navigational interface. In particular, selection of an information element or group of information elements requests performance of a particular task by one of the various embodiments. For instance, an application selection information element is associated with the task of activating an application installed on the computing system, an application operation information element is associated with the task of providing control over an operation of an application, and a text input information element is associated with the task of textual and character input into an application. Additionally and in other embodiments, the information element, which is controlled by a user interface interpretation module 304, might independently provide for the execution of the particular task.

Please replace the paragraph beginning on page 9, line 23 and ending on page 9, line 29 with the following paragraph:

Each input sensing device 120 is linked to an information element associated with a specific task. The information elements define tasks to be administered and are dynamically generated for each input sensing device 120 following the performance of a task in the computing system 300. In accordance with one embodiment, a single information element is the only information element associated with a particular task. In other embodiments, a group of information elements might be associated with one particular task. In this embodiment, selection of all the information elements associated with the task requests performance of the task.

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Please replace the paragraph beginning on page 10, line ~~8~~²⁶ and ending on page ~~10~~¹¹, line ~~13~~² with the following paragraph:

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In yet other embodiments, overall computer control might be a task. In this embodiment, control over operations of either the operating system 302, the desktop environment, or the user interface might be administered. Whereas input sensing devices 120 are associated with the tactile input device 100, information elements are dynamically generated by the user interface interpretation module 304 for each instance of the user interface 304. Information elements are dynamically updated in light of the current operation, task, or function to be performed.

Please replace the paragraph beginning on page 12, line ~~3~~²⁵ and ending on page ~~12~~³, line ~~12~~⁴ with the following paragraph:

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FIG. 11 generally illustrates operations of the tactile input device 100 for providing computer input and control to a computing system 300 in accordance with an embodiment of the present invention. The operation for providing computer input and control begins with start operation 1100 once the user initiates contact with the tactile input device 100. In one embodiment, the tactile input device 100 is a touchpad having sensors for detecting touch by the user. The sensors are input sensing devices 120 that transmit selection signals indicative of a user request to the user interface interpretation module 304. While a sensory touchpad is generally described in the operation flow of FIG. 11 and more particularly described in Figures 6 through 10, any number of

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combinations of pads, keys, buttons, and posts might be selected as an input sensing device 120 to the user interface interpretation module 304.

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Please replace the paragraph beginning on page ¹³12, line ¹⁹13 and ending on ~~page 12, line 20~~ with the following paragraph:

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Start operation 1100 initiates the operation flow for providing a request associated with computer input and control to a user interface interpretation module 304 through the tactile input device 100. Detect operation 1102 detects selection of an input sensing device 120. Each input sensing device 120 is linked to an information element representing a task to be performed in the computing system 300. According to various embodiments, the entering and editing of text, and operations associated with editing text, activation of an application, operation of an application, and overall computer control might all be tasks to be administered in the computing system 300. As described in Figures 7 and 8, the information elements associated with each input sensing device 120 are dynamically updated in light of the current task to be performed. Once selection of an input sensing device 120 is realized, transmission operation 1104 transmits a selection signal from the tactile input device 100 to the user interface interpretation module 304. A selection signal is a signal from an input device (such as 100) which is recognizable by the user interface interpretation module 304 as a task to be performed in the computing system 300. Following transmission operation 1104, termination operation 1106 terminates the operation flow.

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Please replace the paragraph beginning on page ¹³12, line ²⁴27 and ending on ~~page 12, line 32~~ with the following paragraph:

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In one embodiment, a particular task associated with an input sensing device 120 might be the entering of a character into an application. In another embodiment, a particular task might be the activation of an application on the display. In yet another embodiment, a particular task might be the generation of updated information elements for an application operating through the user interface 100. For example, the particular task might be the opening of the menu items 508 of the file menu of an application.

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Please replace the paragraph beginning on page 13, line 1 and ending on page 13, line 20 with the following paragraph:

FIG. 6 further illustrates the operations performed by the tactile input device 100 in detecting selection of an input sensing device 120 and transmitting the selection signal associated with the selection to the user interface interpretation module 304. In particular, FIG. 6 further describes the operations of detect operation 1102 and transmission operation 1104. The operational flow of FIG. 6 illustrates user selection of one of two operating modes of user interface interpretation module operation based upon the location of the user's initial selection on the tactile input device 100. The two rendering modes of user interface interpretation module operation are a text-operating mode and a control-operating mode. Figures 7 through 10 elaborate on FIG. 6, thus providing further detail of the operations triggered through a user interface interpretation module 304 controlled by the tactile input device 100. In an embodiment, interface default operation 600, provided by the user interface interpretation module 304, initializes the information elements associated with the input sensing devices 120 of the tactile input device 100 to an application arrangement incorporating the character pattern of FIG. 5. The application arrangement contains information elements representing tasks associated with operating the active application running through the user interface. In accordance with various embodiments, the application might be an application program, an operating system, a desktop environment defined by a user interface, or any other program operating on the operating system of a computing system 300. In one embodiment the application arrangement might be defined as an initial/default arrangement specified by the active application. In another embodiment, the arrangement might be an instance defined by performance of an immediately previous task.

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Please replace the paragraph beginning on page 13, line 21 and ending on page 14, line 5 with the following paragraph:

Sensory operation 602 detects when a user initiates contact with the surface of the tactile input device 100. Once a user touches the tactile input device 100, sensory operation 602 enables request operation 604. Request operation 604 detects whether the user's input

stroke begins on the central portion 104 of the tactile input device 100. If the input stroke begins on the central portion 104, then text operation 608 transmits a text selection signal to the user interface interpretation module 304 activating the text-operating mode for text inputting and editing. FIG. 8 shows an embodiment of the operational flow of the text-operating mode of the user interface interpretation module 304 wherein the input sensing devices 120 of the tactile input device 100 are used to select information elements related to text input and editing. Once text-operating mode is complete, as described below in FIG. 8, operation flow is terminated and initialized to beginning 599. If request operation 604 detects that the user has not selected the central portion 104, then navigation operation 606 transmits a control selection signal to the user interface interpretation module 304 activating the control-operating mode for computer control and navigation. Figures 7A and 7B show an embodiment of the operational flow of the control-operating mode of the user interface interpretation module 304 wherein input sensing devices 120 of the tactile input device 100 are used to select information elements related to computer control and application navigation. Once the control-operating mode is complete, as described below in Figures 7A and 7B, operation flow is terminated and initialized to beginning 599.

Please replace the paragraph beginning on page 17, line 12 and ending on page 17, line 19 with the following paragraph:

Referring back to FIG. 6, if request operation 604 detects that the user has not selected the central portion 104, then navigation operation 606 transmits a selection signal to the user interface interpretation module 304 activating the control-operating mode for computer control and navigation. Figures 7A and 7B show an embodiment of the operational flow of the control-operating mode of the user interface interpretation module 304 wherein input sensing devices 120 of the tactile input device 100 are used to select information elements related to computer control and application navigation. Once control-operating mode is complete, operation flow is terminated and initialized to beginning 599.

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Please replace the paragraph beginning on page ~~17~~, line 20 and ending on page 18, line 17 with the following paragraph:

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In the control-operating mode, the tactile touchpad is used to input control commands. Accordingly, the primary task to administer is selection of a control operation of an application through a control stroke. In accordance with an embodiment, a control operation might be the activation of an application or the implementation of an operation of the application. Figures 7A and 7B illustrate various control strokes selecting a control operation task in accordance with one embodiment of the present invention. Referring to Figures 7A and 7B, the control-operating mode of the user interface interpretation module 304 is entered through the operation flow of FIG. 6. Lift operation 700 detects whether the user performed a touch and lift on a petal 102 of the tactile input device. If the user performed a touch and lift, then a selection signal indicative of this detection is sent to the user interface interpretation module 304 as described in FIG. 11 and interface selection operation 704 is activated by the user interface interpretation module 304. Selection operation 704, inherent in the user interface interpretation module 304, assigns a variable, n , to the number of the petal 102 selected. Interface status operation 706, inherent in the user interface interpretation module 304, determines whether the application program referenced by petal n is an application already activated on the desktop environment. If interface status operation 706 concludes that the application program is not opened, then interface launch operation 708, an operation performed by the user interface interpretation module 304, calls the execution program of the application in order to launch the application on the desktop. If the program is activated, as determined by interface status operation 706, or once the program is launched by interface launch operation 708, interface activation operation 710, an operation performed by the user interface interpretation module 304, activates the application to be the primary application on the display 306. Interface information operation 712, an operation performed by the user interface interpretation module 304, updates the information elements of the input sensing devices 120 of the tactile input device 100 to represent tasks specific to the activated application. Interface control operation 713, an operation performed by the user interface interpretation module 304,

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determines whether the tasks and operations represented by the information elements are associated with either the control-operating mode or the text-operating mode of the user interface interpretation module 304. If the information elements are associated with the control-operating mode, then operation flow passes to touch operation 716. If the information elements are associated with the text-operating mode, then operation flow is terminated and may be re-initiated at beginning 599.

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Please replace the paragraph beginning on page 20, line 8 and ending on page 20, line 20 with the following paragraph:

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Interface calculation operation 730, an operation performed by the user interface interpretation module 304, calculates the number of petals 102 touched following initial contact on the tactile input device 100. Once interface calculation operation 730 terminates, interface rotation operation 732, an operation performed by the user interface interpretation module 304, rotates the information elements associated with the input sensing devices 120 of the petals 102 of the tactile input device 100 in the direction (clockwise or counterclockwise) and number of petals 102 as calculated by the interface calculation operation 730. By rotating the information elements, users can dictate which task is represented as the north petal 900 and primary menu item 508 of the tactile input device 100. Accordingly, interface update operation 734, an operation performed by the user interface interpretation module 304, generates information elements material to the task that is currently referenced by the north petal 900 of the tactile input device 100. Following interface update operation 734, operation flow passes to control operation 713 and operation flow continues as earlier discussed.

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Please replace the paragraph beginning on page 20, line 21 and ending on page 20, line 28 with the following paragraph:

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In one embodiment of the present invention, the outer circumferential portion 108 is used as a cancel lip to abort a command in the middle of an input stroke. FIG. 10 is an illustration of a stroke cancel operation in accordance with one embodiment of the invention. The operational flow of FIG. 10 may be used in all operations of Figures 7

and 8 wherein the user is currently performing an input stroke. In essence, the operational flow of FIG. 10 resets the information elements associated with the input sensing devices 120 of the tactile input device 100 to the immediate previous instance of the user interface. An instance is a momentary portrayal of the information elements of the user interface immediately prior to the performance of a task.
